

UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA

Bombardier Recreational  
Products Inc. and BRP U.S. Inc.,

Plaintiffs,

v.

**MEMORANDUM OF LAW & ORDER**

Civil No. 12-2706 (MJD/LIB)

Arctic Cat Inc. and Arctic Cat  
Sales Inc.,

Defendants.

---

Harry C. Marcus, Robert K. Goethals and Joseph A. Farco, Locke Lord LLP  
and Kevin D. Conneely, Stinson Leonard Street LLP, Counsel for Plaintiffs.

Annamarie A. Daley, Niall A. MacLeod and Emily Grande Stearns, Barnes  
& Thornburg LLP, Counsel for Defendant.

---

This matter is before the Court pursuant to the parties' request that the  
Court construe disputed claim terms included in three patents owned by  
Plaintiffs Bombardier Recreational Products Inc. and BRP U.S. Inc. (collectively  
"BRP"): U.S. Patents Nos. 7,124,847 ("847 patent"), 7,124,848 ("848 patent"), and  
7,213,669 ("669 patent").

**I. Background**

BRP is a Canadian corporation that has its principal place of business in

Quebec, Canada. BRP manufactures and sells snowmobiles under the trademark “Ski-Doo.” BRP US is a wholly owned subsidiary of BRP and is a Delaware corporation with a principal place of business in Sturtevant, Wisconsin. BRP US imports, distributes and sells the Ski-Doo snowmobiles manufactured by BRP.

Defendants Arctic Cat Inc. and Arctic Cat Sales Inc. (collectively “Arctic Cat”) are Minnesota corporations having a principal place of business in Thief River Falls, Minnesota.

BRP alleges that Arctic Cat has infringed one or more claims of the above identified patents by making, using, marketing, offering for sale and selling snowmobiles, including the 2012 model year F800 Series, F1100 Series, SF 800 Series, SF 1100 Series, M800 Series, Sno-Pro 600 Series and AC Sno Pro 500 Series.

The parties filed a Joint Claims Construction Statement which set forth agreed upon claim constructions and the proposed claim constructions as to terms to which they do not agree. By Order dated September 25, 2014, the parties were directed to brief and argue as to ten representative claim terms, phrases or clauses.

## II. Patents in Suit

The '847 and '848 patents involve frame construction for a vehicle, such as a snowmobile, all terrain vehicle ("ATV") or other similar vehicle, and the '669 patent involves snowmobile rider positioning. The '669 patent addresses the need to improve the driver's and passenger's positions to minimize the effect on the riders over uneven terrain and to comfortably accommodate two passengers. (Joint Appendix ("JA") Ex. 3 ('669 patent at 1:61-67).) This is accomplished by shifting the steering device forward, resulting in shifting riders more to the center of gravity. (*Id.* 3:64-67.) By shifting the riding position forward, it is also possible to add a third seat to accommodate an additional rider. (*Id.* 4:4-6.)

The '847 and '848 patents "concern[] the construction of a frame and related structural elements that enhance the ruggedness and ability of such vehicles to operate across a wide variety of different terrains and under a wide variety of conditions." (JA Ex. 1 ('847 patent at 1:26-29); JA Ex. 2 ('848 patent at 1:25-28).) These patents also address frames that will "facilitate the construction of [a] vehicle with an improved rider positioning." (JA Ex.1 ('847 patent at 1:32-33); JA Ex. 2 ('848 patent at 1:31-32).) In the "Summary of the Invention" for both the '847 and '848 patents, the inventors describe a "frame assembly with a tunnel,

an engine cradle disposed forward of the tunnel and connected thereto, and a sub-frame disposed forward of the engine cradle and connected thereto.” (JA Ex. 1 (‘847 patent at 2:54-57); JA Ex. 2 (‘848 patent at 2:51-54).)

### **III. Standard for Claim Construction**

Words in a claim are generally given their ordinary and customary meaning as to one skilled in the art at the time of the invention. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” Id. at 1314. When the ordinary and customary meaning of claim language is not readily apparent, however, the Court must look to “those sources available to the public that show what a person of a skill in the art would have understood disputed claim language to mean.” Id. (citation omitted). Such sources include the words of the claims themselves, the specification, the prosecution history and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art. Id.

In this case, the patents involve the design of recreational vehicles, and three of the four inventors in this case have engineering degrees and the fourth has years of experience in the design of recreational vehicles. Accordingly, a person of skill in the art would have an engineering degree and/or years of experience designing recreational vehicles.

A claim is to be read in view of the specification, yet the Court cannot read a limitation into a claim based on the specification. Renishaw PLC v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1249 (Fed. Cir. 1998) (citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996); Markman v. Westview Instruments, Inc., 52 F.3d 967, 979-80 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996)). The same is true with regard to the prosecution history, which can be used to understand the claim, but not to enlarge, diminish or vary the limitations in the claim. Markman, 52 F.3d at 980. Similarly, extrinsic evidence, such as inventor or expert testimony, dictionaries and treatises, cannot be used to vary or contradict the terms of the claims. Id. at 981. Finally, a patentee is free to be his/her own lexicographer, but any special definition given to a word must be clearly defined in the specification. Id.

**A. “Frame”**

This term is found in all of the patents at issue. Claim 1 of the ‘847 patent recites “A snowmobile comprising: a frame including a tunnel and an engine cradle forward of the tunnel . . .” Claim 1 of the ‘848 patent recites “A snowmobile comprising: a frame including a tunnel, an engine cradle forward of the tunnel, and a sub-frame forward of the engine cradle.”

Claim 1 of the ‘669 patent recites:

A snowmobile, comprising:  
a frame;  
a straddle-type seat disposed on the frame;  
first and second set positions defined by the seat;  
an engine disposed on the frame in front of the seat;  
a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;  
a forward-most drive track axle disposed on the frame;  
two skis disposed on the frame;  
a steering shaft operatively connecting the two skis to the steering device for steering the snowmobile where the steering shaft is disposed over the engine at an angle  $\epsilon$  of less than  $45^\circ$  from vertical, the first seat position is disposed less than 590 mm behind the forward-most drive track axle, the second seat position is disposed behind the first seat position by between 265 mm and 365 mm and the steering position is disposed forward of the forward-most drive track axle.

BRP proposes that the term “frame” be construed as “the structural core of the snowmobile that holds, carries, or supports the other components.” Arctic

Cat proposes the term be defined as “structures consisting of the engine cradle, the tunnel and the sub-frame.”

In support of its construction, BRP asserts that the claims of the ‘847 and ‘848 patents recite that other snowmobile components are “mounted in” “supported by” “disposed on” or “connected to” the frame or the structures that make up the frame, including a tunnel, engine cradle and sub-frame. In addition, the specification discloses that the frame is its structural core, as the frame, together with the suspension, absorbs shock forces. (JA Ex. 1 (‘847 patent, 1:49-54.) The specification further discloses that the “frame assembly” provides the strength and rigidity to carry loads. (*Id.* 13:66-14:4.) Finally, BRP asserts that its construction is consistent with the plain meaning of the term “frame” *viz* the “basic rigid supporting structure of anything.” (JA Ex. 42 at 15028 (Oxford Essential Dictionary, Berkeley ed. August 1998).)

Arctic Cat asserts that the specification does not provide that the frame has components other than a tunnel, engine cradle forward of the tunnel, and a sub-frame forward of the engine cradle. In addition, the inventors testified that the frame consists of the tunnel and the engine cradle. (JA Ex. 56, 18493 (Girouard Dep. at 100:2-13); Ex. 52 at 18073 (Fecteau Dep. at 195:1-196:4).) Arctic Cat further

argues the Court should disregard BRP's construction as the patents do not mention "structural core" or "core" or that a core holds, carries or supports other components, and because BRP's construction provides no guidance as to the meaning of "frame."

The Court will not adopt Arctic Cat's construction as it is not supported by the claim language or the specification. First, Arctic Cat's construction includes "consisting of" even though the claims and the specification of the patents at issue use "including." "Including" is an open-ended term that does not preclude unspecified elements. Aspex Eyewear, Inc. v. Altair Eyewear, Inc., 288 F. Appx. 697, 702 (Fed. Cir. Aug. 1, 2008). By contrast, "consisting of" is a close-ended term that would not permit additional elements to those expressly recited. Cias, Inc. v. Alliance Gaming Corp., 504 F.3d 1356, 1361 (Fed. Cir. 2007). Next, Arctic Cat proposes to construe "frame" as consisting of a sub-frame, yet claim 1 of the '847 patent does not include "sub-frame" as a component. Instead, sub-frame is introduced as a component of the frame by dependent claim 9. Thus, to include sub-frame in the construction of "frame" as used in claim 1 of the '847 patent violates the rule of claim differentiation. See GE Lighting Solutions, LLC v. Agilight, Inc., 750 F.3d 1304, 1310 (Fed. Cir. 2014).



Accordingly, the Court will construe “frame” as follows: “the structural core of the snowmobile that holds, carries or supports other components.” As noted above, “frame” is used differently in the patents at issue; in claim 1 of the ‘669 patent, “frame” stands alone, while claim 1 of the ‘847 patent recites a frame that includes an engine cradle and a tunnel, and claim 1 of the ‘848 patent recites a frame that includes a tunnel, engine cradle and a sub-frame. With this in mind, “frame” should be given a generic construction, with the understanding that depending on the patent, the claim language provides additional limitations. This construction is also consistent with the ordinary meaning of frame, and allows for additional elements that are specifically identified in the claim language of the patents at issue.

**B. “Pyramidal Brace Assembly Connected to the Frame”**

This term is included in claim 1 of both the ‘847 and ‘848 patents:

a pyramidal brace assembly connected to the frame, the assembly including:

left and right rear legs extending forwardly and upwardly from the tunnel, each of the left and right rear legs having a front end and a rear end, the rear ends of the rear legs being spaced further from each other than the front ends of the rear legs, and  
left and right front legs extending rearwardly and upwardly from the frame forward of the tunnel, each of the left and right front legs having a front end and rear end, the front ends of the front legs

being spaced further from each other than the rear ends of the front legs.

BRP provides the following construction: “a pyramid-like structure formed from converging force-transmitting legs, all of which are connected to the frame and terminate at a common apex so as to transmit forces generated at the front and rear of the snowmobile to and from the apex thereby enhancing the frame’s rigidity and strength to resist torsion and bending.”

Arctic Cat proposes the following construction: “a brace assembly with a pyramidal shape connected to the frame.”

In support of its construction, BRP first notes that defining “pyramidal” as a pyramid-like structure captures the ordinary meaning of the term.

Construction of the term “brace assembly” as being formed from converging force-transmitting legs, which are connected to the frame and terminate at a common apex, is supported by the specification, including Figures 14, 19-22, 26-28 and 30. The specification also describes the pyramidal structure as involving a brace assembly consisting of legs that form a geometric shape. (JA Ex. 1 (‘847 patent at 3:24-34; 13:37-38; JA Ex. 2 (‘848 patent at 3:21-31; 13:37-39).) In addition, BRP asserts the existence of a “common apex” is implicit in and necessary to give

life and meaning to the phrase “pyramidal brace assembly.”

BRP asserts the necessity of a common apex is further supported by the ‘944 Canadian Application to which the ‘847/’848 patents claim priority. (JA Ex. 1 (‘847 patent at 1:11-15); JA Ex. 2 (‘848 patent at 1:11-15).) “Most of the suspension force is transferred by way of a pyramidal structure to a common point, i.e., at cross-bar (27). The pyramidal structure of transmitted force from the suspension is more evident in Fig. 22.” (JA Ex. 22 (‘944 Canadian Application at 5474).)

Also, during the prosecution of the ‘847/’848 patents, the applicant distinguished the prior art based on the absence of a pyramidal structure and a common vertex inherent in such structure in the parent ‘212 Application. (JA Ex. 8 (7/25/2005 Appeal Brief, U.S. Patent Application No. 09/877,212 at 1871-1872).)

With respect to the reference that the legs are “force-transmitting” BRP asserts the specification discloses that the legs work only in tension and compression, without bending, and intersect at a common point identified as the steering brackets. (JA Ex. 1 (‘847 patent at 13:38-45).) Braces or legs that work only in tension and compression, without bending, will transmit forces by their very nature. (Id. 14:7-18.) The specification also discloses that the pyramidal brace assembly enhances the frame’s rigidity and strength to resist torsion and

bending. (Id. 13:46-48; 13:56-59).) BRP asserts that its proposed construction thus captures the essence of the pyramidal brace assembly while giving meaning to each of its terms consistent with the intrinsic evidence. See Bicon, Inc. v. Straumann Co., 441 F.3d 945, 950 (Fed. Cir. 2006).

Arctic Cat responds that BRP's construction is an attempt to avoid prior art by deleting from the construction the term "brace." Specifically, inventors of the T&S snowmobile designed an identical structure in 1991. In addition, the law does not require the Court to construe all terms in a claim, only that claims should be interpreted with an eye toward giving effect to all terms in the claim. Bicon, 441 F.3d at 950. Arctic Cat thus argues that BRP has improperly imported language from dependent claims and the specification, while deleting the claim term "brace." For example "apex" is a term that appears in dependent claims 3 and 6 of the '847/'848 patents. See Environmental Designs, Ltd. v. Union Oil Co. of California, 713 F.2d 693 (Fed. Cir. 1983) (finding that it is improper to read into an independent claim a limitation that is explicitly set forth in another claim). BRP also imports from the specification "force-transmitting" and "transmit forces generated at the front and rear of the snowmobile to and from the apex thereby enhancing the frame's rigidity and strength to resist torsion and bending." This

is contrary to established law. See Hill-Rom Servs. Inc. v. Stryker Corp., 755 F.3d 1367, 1372-73 (Fed. Cir. 2014) (noting that courts are not to import limitations from the specification into the claims).

Arctic Cat further argues that BRP's construction renders the claim vague. For example, how much is the frame's rigidity and strength to resist torsion and bending to be "enhanced?" How much resistance to torsion and bending is needed? Further, Arctic Cat asserts that citation to the Canadian Application is improper. See Atmel Corp. v. Information Storage Devices, Inc., 198 F.3d 1374, 1377 n.4 (Fed. Cir. 1999) ("Essential material' may not be incorporated by reference to (1) patents or application published by foreign countries or regional patent offices, to (2) nonpatent publications, to (3) a U.S. patent or application which itself incorporates 'essential material' by reference or to (4) a foreign application").

Finally, Arctic Cat argues its construction stays true to the claim's literal language. The only function of the phrase is that the brace have a pyramidal shape. The actual structure of the brace assembly is recited in other claim limitations, such as the language "the assembly including: left and right rear legs extending forwardly . . . " (JA Ex. 1 ('847 patent, claim 1 at 14:59-61).)

The Court will construe “pyramidal brace assembly” as follows: “a brace assembly with a pyramid-like shape connected to the frame.” This construction is consistent with the claim language and the specification without improperly importing limitations from other claims or from the specification.

**C. “Apex”**

This term is contained in claims 3, 6, 8, 10, 13 and 15 of the ‘847 patent and claims 3, 6-8 of the ‘848 patent.

Claim 3 of the ‘847 and ‘848 patents read as follows: “The snowmobile of claim 1, wherein the legs of the pyramidal brace assembly form an apex not forward of the engine.” Claim 6 recites: “The snowmobile of claim 1, wherein the rear ends of the front legs of the pyramidal brace assembly and the front ends of the rear legs of the pyramidal brace assembly are interconnected and form an apex not forward of the engine.” Claim 8 recites: “The snowmobile of claim 7<sup>1</sup>, wherein the upper column forms the apex with the front ends of the rear legs of the pyramidal brace assembly and the rear ends of the front legs of the pyramidal brace assembly.”

---

<sup>1</sup>Claim 7 adds the limitation of an “upper column” to the snowmobile claimed in claim 1.

BRP proposes the term be construed as “uppermost part of the pyramidal brace assembly.” Arctic Cat proposes the term be construed as “the top of the structure formed by the front ends of the rear legs, the rear ends of the front legs and the upper column of the pyramidal brace assembly.”

The Court will adopt BRP’s construction and construe “apex” as follows: “The uppermost part of the pyramidal brace assembly.” The Court rejects Arctic Cat’s construction because it includes the limitation that the apex is formed with the upper column, yet the upper column plays no part with respect to claims 3, 6, 10, 13 and 15 of the ‘847 patent, or claims 3 and 6 of the ‘848 patent.

**D. “Upper Column”**

This claim term appears in claims 7, 8, 14 and 15 of the ‘847 patent and claims 7 and 8 of the ‘848 patent.

Claim 7 recites: “The snowmobile of claim 6, further comprising an upper column extending upwardly from the frame.” Claim 8 recites: “The snowmobile of claim 7, wherein the upper column forms the apex with the front ends of the rear legs of the pyramidal brace assembly and the rear ends of the front legs of the pyramidal brace assembly.”

BRP proposes the following construction: “an inverted U-shaped structure

forming legs extending upwardly from the left and right sides of the frame intermediate the pairs of rear and front legs.” Arctic Cat provides the following construction: “an inverted U-shaped structure.”

The specification describes the upper column as:

an inverted U-shaped member that is preferably tubular in shape to facilitate its construction. Upper column 118 preferably is bent into the appropriate shape from a straight tube with the dimensions shown. As would be understood by those skilled in the art, however, upper column 118 need not be made as a tubular member.

Upper column 118 has left and right legs 148, 150 that extend downwardly from an apex 152. A bracket 154 is disposed at apex 152 for connection to bracket 126 of frame assembly 84. Preferably, bracket 154 is welded at the apex of upper column 118 (however any other suitable attachment means is possible). Left leg 148 includes a bracket 156 at its lower-most portion that connects left leg 148 to engine cradle 88. Similarly, right leg 150 includes a bracket 158 at its lower-most portion to connect right leg 150 to engine cradle 88. Left and right legs 148, 150 preferably attach to engine cradle 88 via bolts or other suitable fasteners.

(JA Ex. 1 ('847 patent at 8:41-58); JA Ex. 2 ('848 patent at 8:38-55).)

BRP argues the Court should adopt its construction because it further defines the structure consistent with the specification, which is depicted in Figures 8, 9 and 10. Arctic Cat asserts that BRP's proposed construction improperly imports unnecessary limitations. For example, the claim language and the specification do not disclose that the “legs” of the upper column “intermediate” the pairs of rear and front legs. The word “intermediate” is



nowhere to be found in the '847 patent.

The Court will construe “upper column” as follows: “an inverted U-shaped structure forming legs extending upwardly from the left and right sides of the frame.” This construction is consistent with the claim language and the specification without improperly importing limitations.

#### **E. “Engine Cradle”**

This term appears in claim 1 of the '847/'848 patents.

Claim 1 recites: A snowmobile comprising:

\*\*\*

an engine mounted in an engine cradle . . .

BRP proposes that this term be construed as “the part of the frame that supports the engine.” Arctic Cat proposes the following construction “a substantially integral structure including at least a bottom plate and left and right side walls.”

BRP asserts the intrinsic evidence supports its generic construction of the term engine cradle. In a related U.S. patent, the claims specify that the “engine cradle” has side walls and a bottom panel connected between the front and side walls. (JA Ex. 23 (U.S. Patent No. 6,446,744 Patent, Claim 1).) That the inventors chose to claim an engine cradle structure having side walls and a bottom plate in

another patent may be dispositive. See Enzo Biochem, Inc. v. Applera Corp., 599 F.3d 1325, 1333 (Fed. Cir. 2010).

The prosecution history of the '212 application, the parent application to '847/'848 patents, further supports BRP's construction. During prosecution, BRP submitted claim 17 which essentially claimed the identical engine cradle language at issue here - an engine cradle disposed forward of the tunnel. (JA Ex. 5 at 1721.) The Examiner rejected the claim as anticipated by BRP's Talbot Patent 4,620,604. "Talbot discloses a frame having a tunnel 15, an engine cradle (35 and 36), a rear brace assembly (the rear part of element 32), an upper column 34, a track 14 and skis 12." (JA Ex. 6 at 1731.) The drawings in the Talbot patent show an engine cradle that is an open tubular framework having no sidewalls or bottom plate. (JA Ex. 9 at 2035, 2036.) BRP asserts this fact demonstrates that the patent office recognized that "engine cradle" was a generic term which did not require side walls and a bottom plate. See Salazar v. Proctor & Gamble Co., 414 F.3d 1342, 1347 (Fed. Cir. 2005) (noting that statements about a claim term made by an examiner may be evidence of how one skilled in the art understood the term at the time the application was filed). BRP also cites to a related patent application 2004/0129483, which also claims an engine cradle that did not require

side walls or a bottom plate. (JA Ex. 30 at 6563, 6579.)

Finally, BRP asserts that its construction is also supported by extrinsic evidence. The Dictionary of Science and Technology defines “engine cradle” as a “framework that carries, supports, or restrains material or engines.” (JA Ex. 38 (15003).)

Arctic Cat responds that reference to the Talbot patent is misleading as that patent does not mention the term “engine cradle.” (JA Ex. 9 (Talbot Patent).) Similarly, BRP cannot rely on the patent application 2004/0129483, as that application described a specific engine cradle assembly rather than an engine cradle. (JA Ex. 30.)

Arctic Cat further argues that because intrinsic evidence trumps extrinsic evidence, BRP cannot rely on extrinsic dictionary definitions that are contrary to the specification which defines the structure of the engine cradle as including side walls and describes a structure in which an engine may be placed. (JA Ex. 1 (‘847 patent at 3:11-12 (“frame assembly that also includes an engine disposed in the engine cradle”); 9:1-7 (“Left side plate 162 extends forwardly beyond the front portion 170 of tunnel 86 to form a left engine cradle wall 172. Similarly, right side plate 164 extends forwardly of front end 170 of tunnel 86 to form right engine

cradle wall 174. At the lower edge of left and right engine cradle walls 172, 174, there are laterally extending portions 176, 178 which serve to strengthen left and right engine cradle walls . . . "); 9:47-48 ("A front engine cradle wall 206 is also shown in FIG. 13").)

The Court finds that Arctic Cat's proposed construction refers to the portion of the specification which describes the preferred embodiments, and the law is clear that the specification cannot be used to add limitations to claim language. Accordingly, the Court will not adopt Arctic Cat's construction which seeks to add limitations based on the specification.

The Court will construe "engine cradle" as follows: "the part of the frame that supports the engine." This construction is consistent with the claim language and the specification. Specifically, the specification describes the invention as including "a frame assembly that also includes an engine disposed in the engine cradle . . . " (JA Ex. 1 ('847 patent at 3:11-12).)

**F. "A straddle seat disposed on the tunnel above the drive track and rearward of the engine."**

**"The left and right skis are disposed on the frame via connection to the respective suspension arm."**

These terms appear in claim 1 of the '847/'848 patents. The parties dispute

how to construe the phrase “disposed on” with respect to these two claim terms.

BRP proposes that the first term be construed as “a straddle seat arranged so that it is carried by the tunnel above the drive track and rearward of the engine.”

Arctic Cat proposes: “a straddle seat placed directly on the tunnel above the drive track and rearward of the engine.”

With respect to the second claim term, BRP proposes the following: “left and right skis are arranged so that they are carried by the frame via a connection to the respective suspension arms.” Arctic Cat argues that this claim is indefinite in view of other constructions.

BRP argues “disposed on” must be given a generic meaning in order for the term to be used consistently in both claims. The claim term cannot be construed as “placed directly on” as the claim term is used to describe structures that are indirectly carried by the frame via intervening structures. For example, with respect to the claim term “the left and right skis are disposed on the frame via connection to the respective suspension arm” the phrase “disposed on” cannot be construed as “directly placed on” as the skis are clearly not directly placed on the frame. Rather, the skis are attached to the frame via intervening suspension arms. The only way these terms can be harmonized is by construing

“disposed on” as “arranged to be carried by” to permit the presence of an intervening structure.

BRP further asserts that the patent office understood “disposed on” to mean “carried by.” In a related Application 09/472,134, claims were pending that recited the nearly identical clause “a straddle seat disposed on the frame.” (JA Ex. 15 (Application 09/472,134 at 3).) The Examiner rejected the claim, finding that prior art “Yasui shows . . . a seat 14 carried by the frame . . . ” (Ex. 16 at 3459.)

Arctic Cat responds that BRP’s construction conflicts with numerous uses of “disposed” throughout the patents. For example, the terms “disposed below,” “disposed over,” “disposed less than,” “disposed behind,” “disposed forward,” “disposed between,” and “disposed about” appear in the claims of the patents at issue and cannot be construed as “carried by” and still make sense. Instead, the intrinsic evidence points to “disposed” as meaning the location of something. By contrast, there is no intrinsic evidence to support BRP’s construction. If “disposed on” means “arranged so that it is carried by” such construction is indefinite or vague, because it is unclear as to how many degrees of separation can occur for one structure to still be “disposed on” another structure.

Arctic Cat argues that BRP knew how to separate “disposed” to indicate location as opposed to providing structural support for something else. For example, with respect to the claim limitation “drive track disposed below and supported by the tunnel” BRP added the language “supported by” to specify that the track was located below the tunnel and supported by the tunnel. In the context of this patent, therefore, “disposed” should not be construed as referring to load-bearing.

With respect to the term concerning the skis, Arctic Cat argues the skis are not carried by the frame. If anything, the skis carry the frame. Thus, Arctic Cat argues that construing “disposed on” as “attached to” makes sense with respect to the terms at issue: a straddle seat attached to the tunnel, and the skis attached to the frame.

Claim terms are presumed to have the same meaning throughout all of the claims “in the absence of any reason to believe otherwise.” See e.g. Digital-Vending Servs. Int’l, LLC v. Univ. of Phoenix, Inc., 672 F.3d 1270, 1275 (Fed. Cir. 2012) (finding that claim terms used throughout claims are presumed to have the same meaning). The Court finds there is nothing in the claim language or the specification to suggest that “disposed on” should not be given the same

meaning throughout all of the claims. Therefore, the Court will adopt BRP's constructions of these terms by construing "disposed on" as "arranged to be carried by." In the context of the claim language and the specification, this construction is not awkward, as claimed by Arctic Cat, and allows for a consistent application in both claim terms at issue in this section. See In re Orbital Techs. Corp., App. No. 2014-1298, 2015 App. LEXIS 970 at \*16 (Fed. Cir. Jan. 20, 2015) (finding that claim language which required lights to be "disposed on" the inner side of the housing did not require the lights to be attached directly to the housing without intervening material.)

#### **G. "Sub-Frame"**

This term is used in claims 9, 10, 12-15 of the '847 patent and claim 1 of the '848 patent. Claim 9 recites the snowmobile of claim 2, which includes a pyramidal brace assembly that has a cross-member interconnecting the front legs, where "the frame further includes a sub-frame forward of the engine cradle, the snowmobile further comprises left and right suspension arms pivotally connected to the sub-frame on respective sides of the sub-frame . . ." (JA Ex. 1 ('847 patent at 15:28-32).) Claim 1 of the '848 patent provides "A snowmobile, comprising: a frame including a tunnel, an engine cradle forward of the tunnel,



and a sub-frame forward of the engine cradle.” (JA Ex. 2 (‘848 patent at 14:38-39).)

Claim 1 also provides “left and right suspension arms pivotally connected to the sub-frame on respective sides thereof.” (Id. at 14:44-45).)

BRP proposes the following construction of this term “a frame structure that interconnects left and right front suspension arms.” Arctic Cat proposes the following “a V-shaped structure forward of and distinct from the engine cradle.”

The specification illustrates the sub-frame in Figures 16 and 17. In the “Summary of the Invention” the sub-frame is described as “disposed forward of the engine cradle and connected thereto.” (JA Ex. 1 (‘847 patent at 2:56-57); JA Ex. 2 (‘848 patent at 2:52-54).) In describing a preferred embodiment, the specification further describes the sub-frame as “essentially a unitary, V-shaped structure.” (JA Ex. 1 (‘847 patent at 10:55-56); JA Ex. 2 (‘848 patent at 10:52-53).) The specification further provides that “[w]hile sub-frame preferably is a unitary structure (an integrally-formed structure), sub-frame need not be constructed in this manner. As would be understood by those skilled in the art, sub-frame may be assembled from a number of separate elements that are connected together by any suitable means such as by welding or by fasteners.” (JA Ex. 1 (‘847 patent at 10:64-67-11:1-3); JA Ex. 2 (‘848 patent at 10:61-67).) Finally, the specification

describes the sub-frame as “an integral part of front suspension 110 and connects to left support arm 216 and right support arm 218 through a number of brackets 218 connected at various locations on sub-frame 294.” (JA Ex. 1 (’847 patent at 11:4-7); JA Ex. 2 (’848 patent at 11:1-4).)

BRP asserts its generic construction is consistent with the claim language and the specification. In construing this claim, it is not necessary to describe it as forward of the engine cradle, as such language is already in the claim. BRP further asserts that nothing in the claim language or the specification, other than when describing a preferred embodiment, requires the sub-frame to be a V-shaped, unitary structure.

Arctic Cat asserts that BRP’s proposed construction is an improper “means” construction - it describes only what the sub-frame does, rather than provide a structural description. Figure 16 depicts the sub-frame, and such illustration shows a V-shaped structure. In addition, there is no language in the claims or specification that provides the sub-frame interconnecting the suspension arms. It only recites that the suspensions arms are “pivotally connected to the sub-frame.”

The Court will construe “sub-frame” as follows: “a frame structure that is part of the frame assembly.” By construing the claim as a “V-shaped” structure as proposed by Arctic Cat, the Court would improperly import limitations into the claim from the specification, which uses “V-shaped” structure to describe a preferred embodiment. It is also unnecessary to add language that the left and right front suspension arms are connected to the sub-frame or that the sub-frame is located forward of the engine cradle, as that language is already included in the claim.

**H. “A Drive Track Disposed Below and Supported by the Tunnel”**

This claim term is found in claim 1 of the ‘847 and ‘848 patents, which recites “A snowmobile, comprising . . . a drive track disposed below and supported by the tunnel and connected operatively to the engine for propulsion of the snowmobile . . . ”

BRP proposes the following construction: “an endless track for propelling the snowmobile over snow that is supported by the tunnel and arranged so that its path of travel extends below the tunnel.” Arctic Cat proposes “drive track placed below and supported by the tunnel.”

BRP asserts its construction is supported by the claim language and

specification. "Drive track" and "endless track" are used synonymously in the specification. For example, the Abstract of both the '847 and '848 patents describes "an endless track is operatively connected to the engine and disposed beneath the tunnel for propulsion." (JA Ex. 1 at JA 1; JA Ex. 2 at JA 196.) The claims are also limited to vehicles that travel over snow - as they refer to "A snowmobile" in the preamble. (JA Ex. 1 ('847 patent at 14:42); JA Ex. 2 ('848 patent at 14:36).) The specification describes how the endless track propels the snowmobile across snow. "As with any snowmobile, endless track is operatively connected to motor (or engine) to propel snowmobile over the snow." (JA Ex. 1 ('847 patent at 5:45-48).) "Tunnel is connected to a rear suspension that contains a number of wheels disposed on a slide frame around which an endless track rotates to propel snowmobile across the snow." (JA Ex. 1 ('847 patent at 7:42-45).)

BRP further asserts that the endless track must contact the snow as it travels around its cyclical path, and at the same time, the track is supported by the tunnel. For both of these things to occur, BRP asserts the endless track must be arranged so that its path of travel extends into the tunnel so that it can be supported by the tunnel and extend below the tunnel so that it can contact the snow without interference by the side walls of the tunnel. This is illustrated in

Figs. 1, 2, 3 and 5 in both the '847 and '848 patents.

Arctic Cat asserts that throughout the patents at issue, the inventors used the "disposed" followed by a preposition, such as "disposed on" or "disposed below" to specify a location. Thus, Arctic Cat asserts its proposed construction is consistent with BRP's usage of "disposed" by replacing "disposed" with "placed." The Court must reject Arctic Cat's proposal to replace "disposed" with "placed" as it would require the entire drive track to be below the tunnel. Instead, the Court will construe "drive track disposed below and supported by the tunnel" as follows: "drive track that extends below and is supported by the tunnel." This construction is consistent with the claim language and the specification, and acknowledges the fact that the drive track is an endless track, part of which - the portion that is in contact with the ground (or snow) - will be below the tunnel, and the other part will be supported by the tunnel.

#### **I. "Seat Position Defined by the Seat"**

This term is used in claims 80, 88, 97 and 124 of the '669 patent. Claim 80 recites:

A snowmobile, comprising:  
 a frame;  
 a straddle-type seat disposed on the frame;  
 a seat position defined by the seat;

- and engine disposed on the frame in front of the seat;
- a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;
- a forward-most drive track axle disposed on the frame;
- two skis disposed on the frame;
- a steering device having a steering position;
- a steering shaft operatively connective the two skis to the steering device for steering the snowmobile, where the steering that is disposed over the engine at an angle  $\epsilon$  of less than  $45^\circ$  from vertical, the steering position is disposed forward of the forward-most drive track axle and the seat position is disposed less than 590 mm behind the forward-most drive track axle.

BRP proposes the following construction: “a portion of the straddle-type seat positioned beneath the center of weight distribution of a 50th percentile North-American adult male seated in a natural operating position on the snowmobile.” Arctic Cat proposes the following: “a seat position differentiated from other seat positions by a structural adaption on the seat.”

Arctic Cat asserts its construction is supported by the specification, which describes numerous seat positions that are differentiated by a structural adaption on the seat itself - i.e. something defined by the seat. Figure 1 of the '669 patent illustrates a prior art snowmobile straddle seat that is flat, other than a small rise at the far end, yet Figures 2, 5 and 7 of the '669 patent disclose structural adaptations of the seat, such as depressions in the seat, that physically locate the seat position for the rider.

A complete review of the intrinsic evidence refutes Arctic Cat's position. There is nothing in the claim language or the specification that supports a construction that the depressions in the seat are preformed. Instead, the intrinsic evidence makes clear that the depressions on the seat are created by the weight of the rider's body. "It will also be understood that seat 128 will be covered with an amount of foam or similar padding-type material, and that the amount of the foam will vary from seat to seat. When the rider 126 sits upon the seat 128, his weight will cause the foam to compress and he will sink into the seat 128. Preferably, the seating position 130 is determined after this compression has occurred." (JA Ex. 10 (U.S. Application No. 09/472,134 at 2365); JA Ex. 21 (U.S. Application No. 60/167,614 at 5420).) Accordingly, the Court must reject Arctic Cat's proposed construction.

In support of its construction, BRP asserts that the inventors of the '669 patent acted as their own lexicographer to define the term seat position:

The seat 50 has a first seat position 52, which is defined as a portion of the seat 50 that is adapted to support a center of a weight distribution of the first rider 26 on the seat 50. Because snowmobiles typically have elongated straddle seats and are adapted to permit riders to sit in a variety of front-back positions, numerous seat positions will exist on any straddle seat. The inventors of the present invention define the term 'seat position' to point out particular positions on the snowmobile that are adapted to function as the seat position for a standard rider.

(JA Ex. 3 ('669 patent at 5:36-45).) As highlighted in Figure 2, the seat position does not include the entire seat surface, only the portion of the seat beneath the rider's center of weight distribution. "Standard rider" is defined in the specification as "a 50th percentile North-American adult male" who "weighs 78 kgs and has the body build illustrated in FIGS. 9A, 9B and 10." (Id. at 5:48-56.)

BRP asserts the clause "defined by the seat" was added to address concerns that were raised by the Examiner during the prosecution of related patent applications. During the prosecution of the '134 application, which preceded the '669 patent, the Examiner rejected claims under § 101 as encompassing non-statutory subject matter because certain terms, including "seat position," were defined in relation to the human body and therefore improperly incorporated the user into the claim combination. (JA Ex. 11 (Office Action dated September 11, 2000 at 2571).) The Examiner further determined that "every rider is different, so it would be impossible to determine the scope of the claim based on an unspecified rider." (Id.) In response, the inventors pointed out that seat position, like the steering position and the foot rest position, were all defined in terms of the snowmobile and not solely in relation to the human body. (JA Ex. 12 (Amendment dated January 12, 2001 at 2605-06).) Further, the inventors noted



that the claims had been amended to recite a “standard rider” and that the specification includes a definition of “standard rider” that is definite. (Id. at 2606.) In order to address the concerns of the examiner, BRP asserts the inventors amended the claim, using “defined by the seat” to make clear that the seat position is defined by the seat, and not the rider. (Id.)

The ‘699 patent derives from U.S. Application No. 09/877,188. BRP asserts that the inventors, mindful of the Examiner’s concerns of incorporating a user into a claim, included the clause “defined by the seat” to make clear that seat position was defined as part of the seat and not the rider. This position was later accepted by the Board of Patent Appeals and Interferences in a decision involving the ‘188 application. (JA Ex. 4 (Decision on Appeal dated January 2006).) In that decision, the Board rejected the Examiner’s position that the claim language “first and second positions defined by the seat” was obvious in light of the prior art. Specifically, the Board rejected the Examiner’s conclusion with respect to the seat position that “discovering an optimum value of a result effective variable . . . involves only routine skill in the art” because the claimed feature includes a measurement from the forward-most drive track axle that is “far outside the corresponding dimension of the admitted prior art.” (Id. at 1109-

10.) The Board added:

It is appropriate to emphasize that the appellants' claimed first seat position cannot be reasonably interpreted as being located at any point on the snowmobile seat. This is because the phrase 'seat position' has been expressly disclosed by the appellants (e.g. see the first two paragraphs on specification page 8 as well as Figures 9 and 10 of the drawing) as particular positions on a snowmobile that are adapted to function as the seat position for a standard rider having specific dimensions. See generally Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005).

(Id.)

Arctic Cat's argument, that BRP is asking the Court to ignore "defined by the seat" and to construe "seat position" with a claim scope that BRP was not able to obtain from the patent office, is thus not supported by the intrinsic evidence.

Accordingly, the Court will construe the claim "seat position defined by the seat" based on the inventors' definition contained in the specification. However, the Court notes that BRP's proposed construction does not include the entire definition that is included in the specification. As noted above, the specification and figures refer to the "standard rider" which is defined as 50th percentile North-American adult male that weighs 78 kgs and has the body build illustrated in FIGS. 9A, 9B and 10. (JA Ex. 3 ('669 patent at 5:51-52.) Thus, the

claim construction must include reference to weight and body build of the standard rider.

In addition, “natural operating position” does not appear in the claim language or the specification. BRP asserts this portion of its construction is derived from the intrinsic evidence, specifically from U.S. Provisional Application 60/167,614, which is incorporated by reference in the ‘669 patent. Specifically, in the ‘614 Application, the inventors discuss the seat position as

when rider 126 is on snowmobile 110, the rider will be positioned on seat 128 so that he occupies seat position 130. Seat position 130 is the point at which the width of the rider 126 is exerted on the seat 128. . . . In cases of difficulty, it may be determined by taking a 50-percentile United States human male, placing him on the snowmobile in the position shown in the Figures . . and drawing a line from his shoulder through his hip.

(JA Ex. 21 at 5420.) BRP asserts the Figures in the ‘669 patent show a rider in the same riding position as shown in the ‘614 Application. (See JA Ex. 3 (‘669 patent Figure 7).)

Because “seat position defined by the seat” is determined by reference to points on a specifically defined standard rider, the Court agrees that this term should be construed as describing the position of the standard rider.

Based on the above discussion, the Court will adopt the following construction: “a portion of the straddle-type seat positioned beneath the center

of weight distribution of a 50th percentile North-American adult male weighing 78 kg and has the body build illustrated in FIGS. 9A, 9B and 10 seated in a natural operating position.”

**IT IS SO ORDERED.**

**Date: September 28, 2015**

**s/Michael J. Davis**  
**Michael J. Davis**  
**United States District Court**